

REMARKS

Pursuant to 37 C.F.R. § 1.111, reconsideration of the present application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 2 – 3, 8 – 10, 16 – 24, 26, 27, and 36 are presented for consideration. Claims 1, 4 – 7, 11 – 15, 25 and 28 – 35 were previously canceled.

Claim 36 as amended sets forth a method of treating a substrate to improve the alcohol repellency of the substrate, the method comprising first passing a substrate through a first treatment solution comprising an ionic fluoropolymer and a monovalent salt wherein the first treatment solution does not contain an organic phosphate ester or potassium isobutyl phosphate, and wherein the first treatment solution contains less than about 0.10 weight percent of the monovalent salt, and thereafter contacting the substrate with a second treatment solution comprising an antistatic agent selected from the group consisting of organic phosphate esters and potassium isobutyl phosphates to form a treated substrate, wherein the treated substrate has a percent loss in hydrostatic head value as compared to untreated fabric of about 10% or less.

Support for the claim amendments is found at least at page 14, lines 11 – 15 of the specification and original claim 33. No new matter has been added.

By way of the Office Action mailed June 16, 2010, claims 2, 3, 8, 16 – 24, 26, 27, and 36 were rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over US Patent Number 4,411,928 to Baldwin in view of US Patent Number 4,028,887 to Coates. Additionally, claims 9 and 10 were rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over the above noted references as applied above, and further in view of Potts (US 5,145,727). These rejections are respectfully **traversed** to the extent that they may apply to the presently presented claims.

Claim 36 includes a step of passing a substrate through a first treatment solution comprising an ionic fluoropolymer and a sodium nitrate, wherein the first treatment solution does not include an organic phosphate ester or potassium isobutyl phosphate and wherein the first treatment solution includes less than about 0.10 weight percent of a monovalent salt. The first treatment step is followed by a step of contacting the substrate with a second treatment solution comprising an antistatic agent selected from the group consisting of organic phosphate esters and potassium isobutyl phosphates to form a treated substrate. Applicants have discovered that a water repellency property (hydrostatic head) of a substrate is negatively impacted by simultaneously

treating the substrate with an ionic fluoropolymer treatment chemical (to promote alcohol repellency) and an organic phosphate ester or potassium isobutyl phosphate (to reduce buildup of static charge). This is demonstrated by Comparative Example B, which, when treated with ionic fluoropolymer and potassium isobutyl phosphate, demonstrated a 45% drop in the hydrostatic head value compared with an untreated sample (Comparative Example A). Applicants have additionally discovered that omitting the organic phosphate ester and potassium isobutyl phosphate from the first treatment solution results in reduced adherence of the ionic fluoropolymer to the substrate, thus causing reduced alcohol repellency. This problem is particularly significant when passing the substrate through a treatment solution bath, as it is important that the fluoropolymer adhere to the substrate before it is removed from the treatment solution. Applicants have surprisingly discovered that using less than about 0.1 weight percent of sodium nitrate in the treatment solution will 1) allow the ionic fluoropolymer to adhere to the substrate, 2) provide significant alcohol repellency (80 percent), and 3) provide a percent loss in hydrostatic head value of about 10% or less. However, poor static dissipation results from reduced levels of antistatic agent in the first treatment solution. This problem is solved by subsequent treatment of the substrate with a solution containing an antistatic agent selected from the group consisting of organic phosphate esters and mono- and di- substituted potassium isobutyl phosphates.

The cited combination of references does not teach or suggest Applicants' claimed process. Baldwin teaches an alcohol repellent finish by treatment with a solution including fluoropolymer and a monovalent salt as an antistat. According to the teaching of Baldwin, the monovalent salt is added to **enhance** the antistatic properties (col 5, lines 14 – 16), and is applied in an amount of 0.2 – 0.5 weight percent. Thus Baldwin's amount of monovalent salt is 2 – 5 times more than the amount in Applicants' claim 36. Also, faced with a need for better static dissipation properties, one of ordinary skill would not be motivated by Baldwin to reduce the amount of monovalent salt taught by Baldwin unless improperly motivated by Applicants' specification. To do so would not enhance the antistatic properties, which is precisely the reason that Baldwin has the monovalent salt in the treatment solution. There is no recognition in Baldwin or the other cited references of the problem of negatively impacting water repellency when simultaneously treating with ionic fluoropolymers and organic phosphate esters and mono- and/or di- substituted potassium isobutyl phosphates. Baldwin's use of monovalent salt is directed to promoting antistatic properties, while Applicants' process is directed to solving the problems caused by inclusion of organic phosphate esters and mono- and di- substituted potassium isobutyl phosphates. With these diametrically opposed purposes, one skilled in the art would not be motivated by Baldwin towards Applicants' invention without the hindsight provided by Applicants' specification, to both reduce the monovalent salt

content by 2 to 5 times and subsequently provide a second treatment with an antistat. Baldwin would motivate one skilled in the art to increase the monovalent salt content to address a deficiency in antistatic properties, and would thus lead one skilled in the art away from Applicants' invention.

Coates was cited for teaching that an anionic fluoropolymer may be utilized to impart alcohol repellency and does not address or correct the deficiencies of Baldwin noted above. Additionally, Potts does not address or correct the deficiencies of Baldwin noted above.

The Office Action set forth that the prior claims did not strictly require that the anti-static agent and the monovalent salt be different compounds. It is noted that claim 36 as amended sets forth that the antistatic agents are selected from the group consisting of organic phosphate esters and mono- and di- substituted potassium isobutyl phosphates. As such, the antistatic agents in amended claim 36 are mutually exclusive from monovalent salts.

The Office Action further set forth that the second treatment solution as claimed could be a second application of the first treatment solution. As amended, claim 36 now sets forth that the first treatment solution does not include an organic phosphate ester or potassium isobutyl phosphate, while the second treatment solution does include an antistatic agent selected from the group consisting of organic phosphate esters and mono- and di- substituted potassium isobutyl phosphates. As now claimed, the first and second treatment solutions are mutually exclusive; the second treatment solution cannot be a second application of the first treatment solution.

For the reasons stated above, it is respectfully submitted that all of the presently presented claims are in form for allowance.

Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

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Respectfully submitted,

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ELECTRONIC FILING CERTIFICATE

I, Faye Farrell, hereby certify that this correspondence and all attachments and any fee(s) are being electronically transmitted via the internet to the United States Patent and Trademark Office using the Electronic Filing System on September 16, 2010.

/Faye Farrell/